

1 What is claimed is:

2
3 1. A reusable fence post for supporting roll-up safety fencing having a predetermined width
4 around an excavation or construction site, comprising:

5 an elongated hollow post having a first longitudinal axis, a first predetermined length, a first
6 exterior side having an outside V-angle clamping surface disposed therealong and a predetermined
7 interior cross section, and further closed at a bottom end except for an opening of predetermined
8 shape in the bottom end centered along the first longitudinal axis;

9 a stake extending downward a second predetermined length along a second longitudinal axis
10 from and attached to a lower end of a sliding hammer, wherein the hammer slides freely within the
11 predetermined length of the hollow post along the first longitudinal axis and wherein the stake
12 extends downward through the opening in and outward from the bottom end of the hollow post and
13 wherein a lower stop collar is secured orthogonal to and around the outward extending portion of
14 the stake approximately bisecting the second predetermined length of the stake; and

15 an elongated jaw member, having an inside V-angle clamping surface facing the outside V-
16 angle clamping surface disposed along the first exterior side of the hollow fence post, the elongated
17 jaw member being longer than the width of the safety fence by a predetermined increment and hinged
18 at the lower end to the hollow post near the bottom end of the hollow post on the first exterior side
19 of the hollow post, wherein the upper end of the elongated jaw member swings in an arc to close the
20 elongated jaw against the safety fencing held between the inside and outside V-angle clamping
21 surfaces, thereby clamping the safety fencing therebetween.

22
23 2. The fence post of claim 1, wherein the safety fencing is held between the inside and outside
24 V-angle clamping surfaces such that the outside V-angle clamping surface of the first exterior side
25 of the hollow post is nested partially within the inside V-angle clamping surface of the elongated jaw
26 member while clamping the safety fencing therebetween.

27
28 3. The fence post of claim 2, further comprising:

1 a latch disposed near the upper end of the hollow post for retaining the upper end of the
2 elongated jaw member against the first exterior side of the hollow post in a closed jaw configuration
3 after the safety fencing is placed between the outside V-angle of the hollow post and the inside V-
4 angle of the elongated jaw member wherein the length of the safety fencing is positioned substantially
5 at a right angle to the hollow post.

6
7 4. The fence post of claim 3, wherein the fence post is installable on-site in earth or aggregate
8 or thin asphalt paving surfaces without tools.

9
10 5. The fence post of claim 3, wherein the fence post is installable on-site in earth or aggregate
11 or asphalt surfaces by one person without tools.

12
13 6. The fence post of claim 1, wherein the hollow post is fabricated of metal tubing having a
14 predetermined cross section selected from the group consisting of rectangular, triangular, circular,
15 and elliptical.

16
17 7. The fence post of claim 6, wherein the hollow post is formed of 2 inch X 2 inch rectangular
18 steel tubing having a nominal wall thickness of 0.063 inches.

19
20 8. The fence post of claim 1, wherein the hollow fence post has a first predetermined length
21 that exceeds the width of the safety fence by at least approximately two inches.

22
23 9. The fence post of claim 1, wherein the opening in the closed bottom end of the elongated
24 hollow post is shaped approximately like the cross section of the stake and sized to permit
25 unimpeded passage of the stake but not the slide hammer or the lower stop collar when the hollow
26 post is used as a ram to drive the stake into the earth by forceful, repetitive downward movement
27 of the hollow post against the lower stop collar or extract the stake from the earth by forceful,
28 repetitive upward movement of the hollow post against the slide hammer.

1 10. The fence post of claim 9, wherein the opening is disposed in an end cap attached to the
2 bottom end of the hollow post such that the end cap can withstand upward or downward pounding
3 forces of at least 160 pounds.
4

5 11. The fence post of claim 1, wherein the first exterior side of the hollow fence post is
6 configured to have an outwardly triangular profile extending along substantially all the first
7 predetermined length to provide the outside V-angle clamping surface, except within approximately
8 three inches of both the top end and the bottom end of the hollow fence post.
9

10 12. The fence post of claim 1, wherein the top end of the hollow fence post may include a
11 cap to exclude moisture and debris.
12

13 13. The fence post of claim 1, wherein the hollow fence post includes a buttress brace
14 disposed at the lower end of the hollow fence post on the side opposite the first exterior side of the
15 fence post.
16

17 14. The fence post of claim 1, wherein the lower end of the hollow fence post, with the stake
18 and sliding hammer removed from the hollow post, is attached at right angles to a central portion of
19 a planar base extending outward from the fence post for securing the fence post to a substantially
20 impenetrable surface by placing sandbags on the base.
21

22 15. The fence post of claim 1, wherein the stake comprises a metal rod having a diameter of
23 at least 0.50 inches and a length of at least one-half as long as the width of the safety fence.
24

25 16. The fence post of claim 1, wherein the stake includes a sharpened tip at its lowest end
26 for positioning the hollow fence post and penetrating the earth surface during installation of the post.
27

28 17. The fence post of claim 1, wherein the slide hammer comprises a metal body having an
29 exterior cross section shaped like and slightly smaller than the interior cross section of the hollow post

1 such that the slide hammer is disposed within and slides freely within the predetermined length of the
2 hollow post along the first longitudinal axis.

3
4 18. The fence post of claim 1, wherein the first longitudinal axis and the second longitudinal
5 axis substantially coincide.

6
7 19. The fence post of claim 2, wherein the elongated jaw member comprises an elongated
8 metal bar having a clamping surface cross section selected from the group consisting of rectangular,
9 V-angle, circular, semi-circular, and channel shaped.

10
11 20. The fence post of claim 19, wherein the inside V-angle clamping surface of the elongated
12 jaw member and the outside V-angle clamping surface of the first exterior side of the hollow fence
13 post bear a conforming relationship with one another such that the elongated jaw member, when
14 moved into position to secure the safety fence against the first exterior side of the hollow post, clamps
15 the safety fence between the first exterior side and the elongated jaw member.

16
17 21. The fence post of claim 2, wherein the clamping surface of the elongated jaw member is
18 offset from contact with the clamping surface of the first exterior side of the hollow fence post at the
19 hinged end thereof by an amount approximately equal to a thickness of the safety fence.

20
21 22. The fence post of claim 2, wherein the predetermined increment by which the length of
22 the elongated jaw member exceeds the width of the safety fence is at least approximately one inch.

23
24 23. The fence post of claim 2, wherein the upper end of the elongated jaw member is
25 configured to be received in a latching relationship with a latching device disposed on the top end of
26 the hollow post.

1 24. The fence post of claim 2, wherein the top end of the hollow post is configured with a
2 latching device for receiving the upper end of the elongated jaw member in a latching relationship
3 therewith.
4

5 25. The fence post of claim 3, wherein the latching device comprises a pivoting bail secured
6 to the top end of the hollow post and disposed for looping over the upper end of the elongated jaw
7 member.
8

9 26. The fence post of claim 3, wherein the latching device comprises:
10 slotted extensions of first and second opposite sides of the hollow post adjoining the first
11 exterior side of the hollow post and disposed at the top of the hollow post such that the slotted
12 extensions are at least approximately parallel and opposite one another and extend past the first
13 exterior side of the hollow post at the top of the hollow post, wherein the slots in each extension are
14 disposed at a first ramp angle from the vertical and extending upward and away from the hollow post;
15 a sliding pin, laterally and freely passing through both slots and retained therein such that the
16 sliding pin may be moved upward or downward in the slots, moving respectively upward and away
17 from the first exterior side of the hollow post or downward and toward the first exterior side of the
18 hollow post when the elongated jaw member, having a second ramp angle cut downward across its
19 upper end on the side of the elongated jaw member facing the first exterior side of the hollow post
20 wherein the second ramp angle is greater than the first ramp angle, is brought into contact with the
21 sliding pin causing the sliding pin to move upward within the slots and along the second ramp angle
22 of the elongated jaw member until the upper end of the elongated jaw member passes under the
23 sliding pin allowing the sliding pin to then move downward along the outside of the elongated jaw
24 member and toward the first exterior side of the hollow post and, the sliding pin being retained in
25 position by gravity thereby holding the elongated jaw member against the first exterior side of the
26 hollow post to retain the elongated jaw member in position to clamp the safety fence to the hollow
27 post.
28

1 27. The fence post of claim 26, wherein the sliding pin includes a wire bail attached at each
2 end of the sliding pin for use as a handle to lift the sliding pin while latching the elongated jaw
3 member into position.
4

5 28. The fence post of claim 26, wherein the sliding pin is a bolt having a threaded end and
6 retained in position through both slots by at least a nut installed on the threaded end of the bolt.
7

8 29. The fence post of claim 3, wherein the latch comprises a hinged cup disposed upside
9 down at the top of the hollow post such that when the cup is swung upward the elongated jaw
10 member may be brought into position clamping the safety fence between the elongated jaw member
11 and the first exterior side of the hollow post and when swung downward the cup fits over the upper
12 end of the elongated jaw member thereby holding the elongated jaw member against the first exterior
13 side of the hollow post to retain the elongated jaw member in position to clamp the safety fence to
14 the hollow post.
15

16 30. The fence post of claim 14, wherein the planar base comprises at least one cross member
17 attached to diagonally opposite inside surfaces of a substantially circular hoop.
18

19 31. The fence post of claim 14, wherein the planar base comprises at least one cross member
20 attached at each first and second end thereof at right angles to respective first and second brace
21 members approximately at a midpoint thereof, wherein the planar base resembles a letter H in a plan
22 view.
23

1 32. A reusable fence post for supporting roll-up safety fencing around an excavation or
2 construction site, comprising:

3 an elongated hollow post having a first longitudinal axis, a first predetermined length, a first
4 exterior side and a predetermined interior cross section, closed at a top end and closed at a bottom
5 end except for an opening of predetermined shape in the bottom end centered along the first
6 longitudinal axis;

7 a stake extending downward a second predetermined length along a second longitudinal axis
8 from a slide hammer, wherein the slide hammer slides freely within the predetermined length of the
9 hollow post along the first longitudinal axis and wherein the stake extends downward and outward
10 through the opening in the bottom end of the hollow post and wherein a lower stop plate is secured
11 orthogonal to and around the outward extending portion of the stake approximately bisecting the
12 second predetermined length of the stake;

13 an elongated jaw member, of a length from a lower end to an upper end approximately six
14 inches longer than a width of the safety fencing but not more than the first predetermined length of
15 the hollow post, hinged at the lower end to the hollow post near the bottom end of the hollow post
16 on the first exterior side of the hollow post, wherein the upper end of the elongated jaw member is
17 disposed to swing in an arc while pivoting at the hinged lower end; and

18 a latch disposed near the upper end of the hollow post for retaining the upper end of the
19 elongated jaw member against the first exterior side of the hollow post after the safety fencing is
20 placed against the first exterior side of the hollow post and substantially at a right angle to the hollow
21 post, clamping the safety fencing between the first exterior side of the hollow post and the elongated
22 jaw member.

1 33. A reusable fence post for supporting roll-up safety fencing around an excavation or
2 construction site, comprising:

3 an elongated post having a first longitudinal axis, a first predetermined length between an
4 upper end and a bottom end, a first exterior side and a predetermined cross section and at least first
5 and second pipe sections having a predetermined inside diameter attached to a second side of the
6 elongated post and disposed lengthwise along the first longitudinal axis of the elongated fence post
7 between a midpoint of the predetermined length and a bottom end of the predetermined length of the
8 elongated post;

9 a stake formed of solid metal rod and having a cap formed of a third pipe section having the
10 predetermined diameter attached over an upper end of the stake, the stake extending downward a
11 second predetermined length along a second longitudinal axis from the cap wherein the stake passes
12 through and moves freely within the at least first and second pipe sections and extends downward and
13 outward through the lower one of the at least first and second pipe sections and wherein a lower stop
14 plate is secured orthogonal to and around the outward extending portion of the stake approximately
15 bisecting the second predetermined length of the stake; and

16 an elongated jaw member, of a length from a lower end to an upper end at least approximately
17 two inches longer than a width of the safety fencing but not more than the first predetermined length
18 of the elongated post, hinged at the lower end to the elongated post near the bottom end of the
19 elongated post on the first exterior side of the elongated post, wherein the upper end of the elongated
20 jaw member is disposed to swing in an arc between an open and a closed position while pivoting at
21 the hinged lower end, wherein the safety fencing, when placed between the elongated post and the
22 elongated jaw member, is clamped therebetween when the elongated jaw member is placed in the
23 closed position.

1 34. The fence post of claim 33, further comprising:
2 a latching device disposed near the upper end of the elongated post for retaining the upper
3 end of the elongated jaw member against the first exterior side of the elongated post after the safety
4 fencing is placed against the first exterior side of the elongated post and disposed substantially at a
5 right angle to the elongated post, clamping the safety fencing between the first exterior side of the
6 elongated post and the elongated jaw member.

7
8 35. The fence post of claim 34, wherein the upper end of the elongated jaw member is
9 configured to be received in a latching relationship with the latching device disposed on the upper end
10 of the elongated post.

11
12 36. The fence post of claim 33, wherein:
13 the elongated post is formed of 1" X 1" X 1/8" angle iron to provide an outside V-angle
14 clamping surface as the first exterior side; and
15 the elongated jaw member is formed of 1" X 1" X 1/8" angle iron to provide an inside V-angle
16 clamping surface such that the outside V-angle clamping surface of the first exterior side of the
17 elongated post is nested partially within the inside V-angle clamping surface of the elongated jaw
18 member while clamping the safety fencing therebetween.

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20 37. The fence post of claim 34, wherein the latching device comprises:
21 slotted extensions of first and second opposite sides of the elongated post adjoining the first
22 exterior side of the elongated post and disposed at the top of the elongated post such that the slotted
23 extensions are at least approximately parallel and opposite one another and extend past the first
24 exterior side of the elongated post at the top of the elongated post, wherein the slots in each
25 extension are disposed at a first ramp angle from the vertical and extending upward and away from
26 the elongated post;
27 a sliding pin, laterally and freely passing through both slots and retained therein such that the
28 sliding pin may be moved upward or downward in the slots, moving respectively upward and away
29 from the first exterior side of the elongated post or downward and toward the first exterior side of

1 the elongated post when the elongated jaw member, having a second ramp angle cut downward
2 across its upper end on the side of the elongated jaw member facing the first exterior side of the
3 elongated post wherein the second ramp angle is greater than the first ramp angle, is brought into
4 contact with the sliding pin causing the sliding pin to move upward within the slots and along the
5 second ramp angle of the elongated jaw member until the upper end of the elongated jaw member
6 passes under the sliding pin allowing the sliding pin to then move downward along the outside of the
7 elongated jaw member and toward the first exterior side of the elongated post and, the sliding pin
8 being retained in position by gravity thereby holding the elongated jaw member against the first
9 exterior side of the elongated post to retain the elongated jaw member in position to clamp the
10 safety fence to the elongated post.